



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/811,911

03/19/2001

Rebecca Anne Ansley

Ansley 1

8956

46363

7590

11/28/2006

PATTERSON & SHERIDAN, LLP/
LUCENT TECHNOLOGIES, INC
595 SHREWSBURY AVENUE
SHREWSBURY, NJ 07702

EXAMINER

SUBRAMANIAN, NARAYANSWAMY

ART UNIT

PAPER NUMBER

3692

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,911

Applicant(s)

ANSLEY, REBECCA ANNE

Examiner

Narayanswamy Subramanian

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to applicants' communication filed on August 29, 2006. Cancellation of claims 12-23 has been entered. Rejections made under 35 USC § 112, second paragraph in the last office action are withdrawn in view of the amendments and applicant's persuasive arguments. Claims 1-11 are currently pending and have been examined. The rejections and response to arguments are stated below.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-11 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (emphasis added).

Claims 1-11 are drawn to "A method, comprising: storing financial transaction data and budgetary data, evaluating said transaction data using said budgetary data, displaying the results of said evaluation and periodically synchronizing data in two different databases". As such the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception because the claims do not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result.

The Court of Appeals for the Federal Circuit issued opinions in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention “transforms” an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO’s official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application”). It is not clear as to what real world result is produced as from the steps of the method.

For an invention to produce a “concrete” result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable.

There is no useful, concrete and tangible result produced from implementing the steps of the claimed invention. The dependent claims are rejected for the same reason and by way of dependency on a rejected independent claim.

The claims 1-11 recite a non-statutory process

The instant claims recite mathematical algorithm which solve a problem of synchronizing data in two databases (as recited in claim 1.) A mathematical algorithm is defined as a "procedure for solving a given type of mathematical problem." *Gottschalk v. Benson*, 409 U.S. 63, 65, 175 USPQ 673, 674 (1972); *Flook*, 437 U.S. at 585 n.1. 198 USPQ at 195 n.1; *Diehr*, 450 U.S. at 186, 209 USPQ at 8. **Mathematical algorithms are non- statutory because they have been determined not to fall within the § 101 statutory class of a "process."** *Benson*. "[A]n algorithm, or mathematical formula, is like a law of nature, which cannot be the subject of a patent." *Diehr*, 450 U.S. at 186, 209 USPQ at 8. The exception applies only to mathematical algorithms since any process is an "algorithm" in the sense that it is a step-by-step procedure to arrive at a given result. *In re Walter*, 618 F.2d 758, 764 n.4, 205 USPQ 397, 405 n.4, (CCPA 1980); *Pardo*, 684 F.2d at 915, 214 USPQ at 676.

A mathematical algorithm is not made statutory by "attempting to limit the use of the formula to a particular technological environment." *Diehr*, 450 U.S. at 191, 209 USPQ at 10. Thus, "field of use" or "end use" limitations in the claim preamble are insufficient to constitute a statutory process. This is consistent with the usual treatment of preambles as merely setting forth the environment. See *Flook* (the preamble while limiting the application of the claimed method to "a process comprising the catalytic chemical conversion of hydrocarbons" did not serve to render the method statutory); *Walter*, 618 F.2d at 769, 205 USPQ at 409 ("Although the claim

Art Unit: 3692

preambles relate the claimed invention to the art of seismic prospecting, the claims themselves are not drawn to methods of or apparatus for seismic prospecting"); *de Castelet*, 562 F.2d at 1244 n.6. 195 USPQ at 446 n.6 ("The potential for misconstruction of preamble language requires that compelling reason exist before that language may be given weight"). Compare *Waldbaum*, 559 F.2d at 616 n.6. 194 USPQ 469 n.6 (portion of preambles referred to in method portion of claims "are necessary for completeness of the claims and are proper limitations thereto").

Data-gathering steps

If the only limitations in the claims in addition to the mathematical algorithm are data-gathering steps which "merely determine values for the variables used in the mathematical formulae used in making the calculations." Such antecedent steps are insufficient to change a nonstatutory method of calculation into a statutory process. See *In re Richman*, 563 F.2d at 1030. 195 USPQ at 343; *Sarkar*, 588 F.2d at 1335. 200 USPQ at 139 ("If the steps of gathering and substituting values were alone sufficient, every mathematical equation, formula, or algorithm having any practical use would be per se subject to patenting as a 'process' under §101"): *Gelnovatch*, 595 F.2d at 41 n.7. 201 USPQ at 145 n.7 ("claimed step of perturbing the values of a set of process inputs (step 3), in addition to being a mathematical operation, appears to be a data-gathering step").

The claimed inventions recite data gathering step (synchronizing data in two databases). When viewed in light of the specification, this step constitutes data gathering. As per the court rulings cited above, the claims constitute mathematical algorithm(s) applied to data gathered in the respective process steps. The fact that a mathematical algorithm is applied to solve a

Art Unit: 3692

problem of updating technical coefficients does not make the claim statutory. *Walter*, 618 F.2d at 764-65 n.4, 205 USPQ at 405 n.4. "The type of mathematical computation involved does not determine whether a procedure is statutory or nonstatutory." *In re Gelnovatch*, 595 F.2d 32, 41.201 USPQ 136, 145 (CCPA 1979). A "claim for an improved method of calculation, even when tied to a specific end use, is unpatentable subject matter under §101." *Flook*, 437 U.S. at 595 n.18, 198 USPQ at 199 n.18. Mathematical algorithms may represent scientific principles, laws of nature, or ideas or mental processes for solving complex problems. See *Meyer*, 688 F.2d at 794-95, 215 USPQ at 197. The dependent claims 2-11 are rejected for the same reason and by way of dependency on a rejected independent claim.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations of storing financial transaction data and budgetary data, evaluating said transaction data using said budgetary data, displaying the results of said evaluation and periodically synchronizing data in two different databases. It is not clear as to what is the relationship between the first three steps of the claim and the last step of the claim. Is the step of periodically synchronizing performed regardless of the evaluating and displaying steps? Is the step of periodically synchronizing dependent on the outcome of the evaluating and

Art Unit: 3692

displaying steps? Appropriate clarification/correction is required. Claims 2-11 are rejected because they are dependent on a rejected independent claim.

Response to Arguments

6. Applicant's arguments with respect to pending claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Brown et al. (US Pub. No. 2003/0191698 A1) (October 9, 2003) Method for Rolling Salable Inventory Control and System Thereof.

(b) Tucciarone et al. (US Pub. No. 2004/0122730 A1) (June 24, 2004) Electronic Messaging System and Method Thereof.

(c) Kolls (US Patent 6,763,336 B1) (July 13, 2004) Method of Transacting an Electronic Mail, an Electronic Commerce, and an electronic Business Transaction by an Electronic Commerce Terminal Using a Wirelessly Networked Plurality of Portable Digital Devices.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 3692

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at (571) 272-6777. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dr. N. Subramanian
Primary Examiner

November 23, 2006